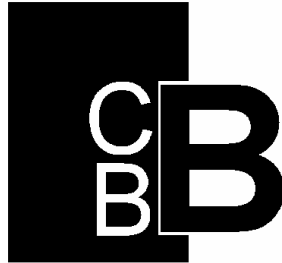


NPDES PHASE II ILLICIT DISCHARGE DETECTION AND ELIMINATION (IDDE) PLAN



TOWN OF WESTFIELD, INDIANA
Permit #INR040109
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**NPDES PHASE II
ILLCIT DISCHARGE DETECTION AND
ELIMINATION (IDDE) PLAN**

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Town of Westfield, Indiana

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CBBEL Project Number 04-452



Town of Westfield, Indiana
SWQMP Part C: Program Implementation

Illicit Discharge Detection and Elimination (IDDE) Plan

This appendix contains the Town of Westfield's strategy to detect and eliminate illicit discharges to the MS4 conveyance system in accordance with the Town's Storm Water Quality Management Plan (SWQMP) and the Town's Illicit Discharge Detection and Elimination (IDDE) Ordinance as required by 327 IAC 15-13 (Rule 13). This plan includes illicit discharge definitions, an outfall screening procedure, a source identification procedure, a list of active industrial facilities that discharge into Town's MS4, and an outfall inspection check list.

ILLICIT DISCHARGE

The term "illicit discharge" is defined in IAC 327 15-13-5 (28) as any discharge to a MS4 conveyance system that is not composed entirely of stormwater, except naturally occurring floatables, such as leaves or tree limbs. The definition provides examples of illicit discharges as sanitary wastewater, septic tank effluent, oil disposal, radiator flushing disposal, laundry wastewater, roadway accident spillage, and household hazardous wastes.

Illicit discharges can be categorized as either direct or indirect. Examples of direct illicit discharges include: sanitary wastewater including piping that is directly connected from a home to the storm sewer, materials (e.g., used motor oil) that have been dumped illegally into a storm drain, a shop floor drain that is connected to the storm sewer, or a cross-connection between the sanitary sewer and storm sewer systems. Examples of indirect illicit discharges include a damaged sanitary sewer line that is leaking into a storm sewer line or a failing septic system that is leaking into a storm sewer line or causing surface discharge into the storm sewer.

As stated in IAC 327 IAC 15-13-14 (d), Westfield's SWQMP need not address the following categories of non-storm water discharges or flows unless the MS4 operator identifies them as significant contributors of pollutants to the MS4 conveyance system. Therefore, in the interim, the Town will not consider those items listed in **Table 1** as illicit discharges. However, if in the future the Town determines any of these activities to be illicit discharges, the Town will update its IDDE Plan accordingly.

Table 1
Exempted Non-stormwater Discharges

Water Line Flushing	Irrigation Water
Landscape Irrigation	Springs
Diverted Stream Flows	Water from Crawl Space Pumps
Rising Ground Waters	Footing Drains
Uncontaminated Ground Water Infiltration	Lawn Watering
Uncontaminated Pumped Ground Water	Individual Residential Car Washing
Discharges from Potable Water Sources	Flows from Riparian Habitats and Wetlands
Foundation Drains	Dechlorinated Swimming Pool Discharges
Air Conditioning Condensation	Street Wash Water
Discharges from Firefighting Activities	

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OUTFALL SCREENING

As required by Rule 13, Westfield will perform dry weather screening on 100% of its stormwater outfalls with a pipe diameter of twelve inches or larger and open ditches with a two foot or larger bottom width within the first five-year permit term. The Town defines dry weather as a period in which there has been no rainfall or no more than one-tenth (.1) of an inch of rain within a seventy-two (72) hour period.

Initial screening of the storm sewer system will be conducted during stormwater outfall mapping activities. The goal of the screening will be to locate pipes or ditches that have dry weather discharges and to test discharges to identify pollutants. Results of this initial screening will be utilized to identify priority outfalls for illicit discharge elimination or additional illicit discharge screening.

Field inspectors will conduct and document physical observations at each stormwater outfall. For those outfalls proceeded by a retention pond, the inspector will conduct and document physical observations of the conveyance that leads to the pond. In the event an outfall or pond conveyance system is discharging during dry weather and physical observations warrant, the inspector will conduct and document a series of in-field water quality tests utilizing a Hach field kit or an equivalent unit.

At a minimum, all in-field water quality testing will screen dry weather discharges for pH, temperature, conductivity, and E.coli. If visual observations and in-field tests suggest water quality problems, the inspector may choose to collect additional samples for further laboratory analysis. The outfall inspector will utilize the outfall inspection checklist at the end of this document in order to accurately record all outfall observations. **Table 2** identifies potential water quality parameters that may be monitored by field inspectors.

Table 2
Water Quality Test Parameters and Uses

Water Quality Test	Reason for Parameter Test	Method
Conductivity	Used as an indicator of dissolved solids.	Hach Field Kit
Temperature	Sanitary wastewater and industrial cooling water can substantially influence outfall discharge temperatures. This measurement is most useful during cold weather.	Field Thermometer
pH	Extreme pH values (low or high) may indicate commercial or industrial flows; not useful in determining the presence of sanitary wastewater (which like uncontaminated base flows, tends to have a neutral pH)	Oakton pHTestR3 or equivalent
Ammonia – Nitrogen	High levels can be an indicator of the presence of sanitary wastewater.	Hach Field Test Kit and laboratory analysis if deemed appropriate.
Phosphorus	Used to indicate the presence of sanitary wastewater.	Hach Field Test Kit and laboratory analysis if deemed appropriate.

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Water Quality Test	Reason for Parameter Test	Method
E. coli	Used to indicate the presence of sanitary wastewater.	Coliscan Easygel and laboratory analysis if deemed appropriate.
Oil and Grease	Used to indicate the presence of oil and grease that would indicate a definite illicit discharge.	Laboratory Analysis if deemed appropriate.
Metals	Dissolved Iron exposed to air oxidizes and reduces oxygen levels.	Laboratory Analysis if deemed appropriate
Optical Brighteners	Used to indicate the presence of laundry detergents (which often contain fabric whiteners, which cause substantial fluorescence)	Untreated cotton pad surrounded by mesh bag placed in storm drain outlet, manhole, or catch basin; left for 5-7 days. Then cotton pad placed under UV light.

SOURCE IDENTIFICATION

Westfield will attempt to identify the source of all dry weather discharges. Recognizing that most dry weather discharges will not be constant, the Town understands that identifying the source of 100% of all illicit discharges is unlikely.

For each dry weather discharge, the inspector, after conducting the visual observations and outfall testing, will utilize the Town's storm sewer map and follow the drainage ditch or identify the most up-pipe manhole with a junction in an attempt to identify the general location from which the discharge originates. If, from following the drainage ditch or inspecting the manhole, the inspector can determine the direction from which the discharge originates, he or she will then continue upstream or to the next up-pipe manhole until he or she can pinpoint the source or the general vicinity from where the discharge is originating. If the inspector cannot identify the specific source through visual observation or if the trail of the discharge dissipates, a dye test, smoke test, or video inspection may be necessary to determine the source of the discharge.

Dye Testing

If an inspector is able to narrow down the likely source of a discharge to a few homes or businesses, the Town will perform a dye test one building at a time. Non-toxic dye will be flushed into toilets, sinks and other drains, and then storm sewer and sanitary sewer manholes and storm sewer outfalls will be observed to check for presence of the dye. Prior to testing, the Town will contact building owners and occupants to obtain access to the buildings. The County Surveyor's Office, the County Health Department and the IDEM's Office of Water Quality will be notified so they will be prepared to respond to citizen calls and/or questions. Two or more Town staff will be equipped with two-way radios with one person inside the building and the others stationed at appropriate opened manholes and/or outfalls. The inside person will drop dye into a plumbing fixture and run a sufficient amount of water to move the dye through the plumbing system. The inside person will then radio the outside crew so they can watch for the dye and record the presence or absence of dye.

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Smoke Testing

If dye tests prove unsuccessful, the Town may opt to conduct smoke testing. A smoke test involves injecting non-toxic smoke into storm sewer lines and then noting the emergence of smoke from sanitary sewer vents in illegally connected buildings or from cracks and leaks in the storm sewer lines. The injection will be done by placing a smoke bomb in the storm sewer manhole below ground and forcing air in after it. Town staff will be stationed at points of suspected illegal connections or cracks/leaks, noting any escape of smoke. Prior to performing tests, the Town will inform building owners and occupants in the area, as well as, police and fire departments.

Video Inspection

Video inspections involve filming the storm sewer system and tracking a discharge to its source. Due to the expertise and technology required to conduct such investigations, the cost associated can be high. In addition, the firms that provide such services may not be readily available to conduct a video inspection increasing the chances that the discharge may cease before it can be thoroughly investigated. Therefore, Westfield will only rely upon video inspections if smoke testing and/or dye testing prove insufficient in the identification of a discharge.

IDENTIFICATION OF ACTIVE INDUSTRIAL FACILITIES IN THE MS4 AREA

All active industrial facilities located within Westfield's MS4 area are listed in **Table 3**. This information will be updated annually by the Town to ensure the list is accurate and current. The table will assist field inspectors with identifying potential pollutants of concern as well as the potential sources of illicit discharges.

Table 3
Active Industrial Facilities in the MS4 Area

Facility Name	Street Address	Mailing Address	Telephone Number	SIC Code
Bearing Technology Inc	17414 Tiller Ct Westfield, IN	17414 Tiller Ct Westfield, IN	317-867-2717	3562
Cor-Tube Inc	17041 Westfield Park Dr Westfield, IN	17041 Westfield Park Dr Westfield, IN	317-867-4162	3082
Enterprise Marking Products	17450 Tiller Ct Westfield, IN	17450 Tiller Ct Westfield, IN	317-867-7600	2672
Logo USA Corp	320 Parkway Cir Westfield, IN	320 Parkway Cir Westfield, IN	317-844-5348	2396
MidCon Manufacturing Corp	17201 Westfield Park Dr Westfield, IN	17201 Westfield Park Dr Westfield, IN	317-867-0335	3694
Premium Surfaces Fabrication	17401 Tiller Ct Ste D Westfield, IN	17401 Tiller Ct Ste D Westfield, IN	317-867-1013	2821
Sakrete Inc	PO Box 296 Westfield, IN	17032 US 31N Westfield, IN	317-896-2184	3272
Simba Inc	1010 Kendall Ct Westfield, IN	1010 Kendall Ct Westfield, IN	317-896-3880	3993
Siti Industrial Products Inc	17338 Westfield Park Rd Westfield, IN	17338 Westfield Park Rd Westfield, IN	317-867-1159	3444
Standard Locknut Inc	PO Box 780 Westfield, IN	1045 E 169 th St Westfield, IN	317-867-0100	3599
Sun Packaging Inc	17728 Sun Park Dr	17728 Sun Park Dr	317-896-2591	2673

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	Westfield, IN	Westfield, IN		
Truss Manufacturing Co Inc	17350 US Highway 31 N Westfield, IN	PO Box 418 Westfield, IN	317-896-2571	2439
Uniform Hood Lace Inc	18881 US Highway 31 N Westfield, IN	PO Box 364 Westfield, IN	317-896-9555	2399
Westfield Door & Frame Inc	17309 Westfield Park Rd Westfield, IN	PO Box 868 Westfield, IN	317-896-2100	2431

Illicit Discharge Detection and Elimination Reporting

The inspectors responsible for outfall screening and identifying illicit discharges will maintain a database that documents all activities associated with the Town's IDDE Plan ranging from mapping, outfall screening, source identification and enforcement. All activities associated with this plan will be documented and submitted to the IDEM with the Town's annual SWQMP report.

Appendix 1

Outfall Screening Checklist

Outfall #: _____ Receiving Water: _____
Date: _____ Time: _____ Air Temperature: _____ Sunny _____ Cloudy _____
Inspector: _____
Last Rainfall ≥ 0.10 " : _____
Land Use in Drainage Area: _____

Physical Observations

Flow rate: ☐ Trickle ☐ 1/4 Flow ☐ 1/2 Flow ☐ 3/4 Flow ☐ Full Flow
Discharge Color: ☐ none ☐ yellow ☐ brown ☐ green ☐ red ☐ gray ☐ other
Turbidity: ☐ none ☐ cloudy
Floatables: ☐ none ☐ petroleum sheen ☐ sewage ☐ other _____
Deposits/stains: ☐ none ☐ sediment ☐ oily ☐ other _____
Vegetation conditions: ☐ normal ☐ excessive growth ☐ inhibited growth
Damage to outfall structures: ☐ none ☐ cracking ☐ spalling ☐ peeling paint ☐ metal corrosion
Other damage: _____

Analyses

Parameter	Tested	Results	Equipment Used
Temperature (°C)			
pH			
Conductivity (uS/cm)			
E. coli (CFU/100mL)			

Comments:
